



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/673,193	09/30/2003	Tatsushi Sano	243331US6	1262

22850 7590 06/12/2006

OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.  
1940 DUKE STREET  
ALEXANDRIA, VA 22314

EXAMINER
----------

PSITOS, ARISTOTELIS M

ART UNIT	PAPER NUMBER
----------	--------------

2627

DATE MAILED: 06/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/673,193	<b>Applicant(s)</b> SANO ET AL.	
	<b>Examiner</b> Aristotelis M. Psitos	<b>Art Unit</b> 2627	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 September 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                    | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____  |

Art Unit: 2627

## **DETAILED ACTION**

### ***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Specification***

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

### ***Claim Objections***

1. Claims 1-4,8-11, 13 and 15 are objected to because of the following informalities:

With respect to claims 1, 13, 8, 9,15 the following informalities exist:

a) the noise remover's function is described as predicated upon a pulse width capability.

However, since no such element/means is positively recited to yield such, this cannot occur. It is noted that claims 3 and 10 correct for such. The examiner recommends including such a limitation in all of the independent claims so affected in order to clarify such.

Claim 9 includes subject matter already presented in claim 8, and hence the examiner is not sure as to what additional limitation (if any) such dependent claim adds to its parent claim. The remaining dependent claims fail to correct for the above and are objected to as well.

Appropriate correction is required.

As far as the claims recite positive limitations, and as interpreted below the following art rejections are made.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2627

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2. Claims 1 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kiyose et al considered with Yoshida et al.

With respect to apparatus claim 1, it is noted that the Kiyose et al reference in describing the operation of figure 1b – starting at col. 8 line 51 focuses upon a pll detection capability in which noise is removed predicated upon a window pulse. The examiner interprets such as meeting the pulse width detection limitation of independent claims 1 and 13 (method claim parallel apparatus claim 1).

With respect to the push-pull capability, although such is not clearly depicted in Kiyose et al, such signal processing abilities are well known and relied upon in this environment – see the discussion of such in Yoshida et al starting at col 5 line 48.

It would have been obvious to modify the base system of Kiyose et al with such additional teaching, motivation is of course to detect the signal by using accepted signal detection circuits established in this environment.

The limitations of method claim 13 are met when the above combined system operates.

Art Unit: 2627

3. Claims 3 & 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claims 1 and 13 as stated in paragraph 2 above, and further in view of Matsumaru and further with Official notice.

With respect to the ability of having a variable pulse width detector of claim 3 and the limitation of claim 4, is further taught by Matsumaru – see figure 9, the length of the pre-pits are indeed variable – this is one type of pre-pit.

As known to those in the pulse communications arts, the ability of having a detector predicated upon pulse width detecting techniques – such as variable width are well known in order to detect various pulse widths and Official notice is taken thereof..

It would have been obvious to modify the base system as relied upon above in paragraph 2 with the additional teaching from Matsumaru and Official notice so as to have pre-pits of variable lengths and variable pulse width detecting elements so as to detect such variable widths. Such provide for the ability of detecting the various pre-pit formats available in this environment and thereby increasing the flexibility of the overall system so as to be adaptive to such pre-pit formats.

4. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claims 1 and 13 as stated in paragraph 2 above, and further in view of Tobita et al

With respect to the limitations of claim 2 that of address signal capabilities, the Tobita et al further teach such reference.

It would have been obvious to modify the base system as relied upon above in paragraph 2 with the additional teaching of address signal detection as taught by Tobita et al, motivation is to use such a format and access the desired track as decided upon by the user.

5. Claims 5, 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tawaragi considered with Yoshida et al.

As discussed in figures 4 of Tawaragi, pll detection capabilities predicated upon a count value for such is known. There is no clear pp (push-pull) detection.

Art Unit: 2627

Yoshida et al teaches such in this environment for the inherent ability in dvd-r environment. Since Tawaragi is also concerned with such a disc format, if not inherently present, then certainly obvious to use such, motivation is to use existing detectors and save time in redesigning detector arrangements.

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claims 5 and 14 as stated in paragraph 5 above, and further in view of Tobita et al.

With respect to the limitations of claim 6 that of address signal capabilities, the Tobita et al further teach such reference.

It would have been obvious to modify the base system as relied upon above in paragraph 5 with the additional teaching of address signal detection as taught by Tobita et al, motivation is to use such a format and access the desired track as decided upon by the user.

7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claim 5 as stated in paragraph 5 above, and further in view of Yoshida et al ('983).

With respect to the ability of relying upon a count value, less than, or greater than a predetermined value such is considered taught by the Yoshida et al reference – see the discussion starting with the description of figure 3, the cooperation of the pre-pit and error count elements 23 –24 and subsequent signal control predicated upon such.

It would have been obvious to modify the base system as relied upon in paragraph 5 with the above noted teaching from Yoshida et al, motivation is to appropriately control the play back device as the error counts vary.

8. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claim 6 as stated in paragraph 6 above, and further in view of Yoshida et al ('983).

With respect to the ability of relying upon a count value, less than, or greater than a predetermined value such is considered taught by the Yoshida et al reference – see the discussion starting with the description of figure 3, the cooperation of the pre-pit and error count elements 23 –24 and subsequent signal control predicated upon such.

Art Unit: 2627

It would have been obvious to modify the base system as relied upon in paragraph 6 with the above noted teaching from Yoshida et al, motivation is to appropriately control the play back device as the error counts vary.

9. Claims 8, 9 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kiyose et al considered with Tawaragi both further considered with Yoshida et al and all further considered with Tobita et al.

Claim 8 is a composite of the limitations found in independent claims 1 and 5. As such, they are found in the Kiyose et al and Tawaragi references. The push-pull is further discussed in Yoshida et al .

It would have been obvious to modify either Kiyose et al & Yoshida et al with the additional teaching from Tawaragi, or alternatively Tawaragi & Yoshida et al with the additional teaching from Kiyose et al, so as to provide for the pre-pit detection capability predicated upon both a pulse width and count function - as alluded to in the system of Tawaragi, see figure 4 which describes both a pulse count and pulse width criteria.

This provides for a more accurate pulse detection capability.

Tobita et al further teach the address capability in this environment and as stated/analyzed above with respect to claim 2, such is a desired feature of disc players so as to permit a user to select desired tracks.

Method claim 15 is met when the above combined systems operate.

The limitations of claim 9 are already present in claim 8 and hence fall with claim 8.

10. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claim 8 as stated in paragraph 9 above, and further in view of Matsumaru and further with Official notice.

With respect to the ability of having a variable pulse width detector of claim 10 and the limitation of claim 11, is further taught by Matsumaru – see figure 9, the length of the pre-pits are indeed variable – this is one type of pre-pit.

Art Unit: 2627

As known to those in the pulse communications arts, the ability of having a detector predicated upon pulse width detecting techniques – such as variable width are well known in order to detect various pulse widths and Official notice is taken thereof..

It would have been obvious to modify the base system as relied upon above in paragraph 2 with the additional teaching from Matsumaru and Official notice so as to have pre-pits of variable lengths and variable pulse width detecting elements so as to detect such variable widths.

Such provide for the ability of detecting the various pre-pit formats available in this environment and thereby increasing the flexibility of the overall system so as to be adaptive to such pre-pit formats.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The remaining references are relied upon for use of pre-pit detection circuits in this environment for the desired capabilities.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aristotelis M. Psitos whose telephone number is (571) 272-7594. The examiner can normally be reached on M-F: 6:00 - 2:30.

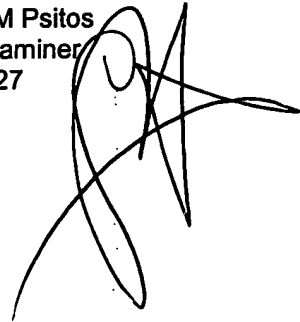
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dwayne D. Bost can be reached on (571) 272-7023. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Art Unit: 2627

Aristotelis M Psitos  
Primary Examiner  
Art Unit 2627

A handwritten signature in black ink, consisting of several overlapping loops and a long horizontal stroke extending to the right.

amp